

Claims

1. Use of fucosylated sialylated N-acetyl lactosamine structures and/or sialyl-Lewis antigen carbohydrate structure for the preparation of a pharmaceutical composition for the treatment or prophylaxis in humans of conditions involving infection by *Helicobacter pylori* and related pathogens of the human gastrointestinal mucosa.

2. Use according to claim 1, in which the sialyl-Lewis antigen carbohydrate structure is capable of binding to adhesins present on the surface of *H. pylori*.

3. Use according to claim 1 or 2, in which the sialyl-Lewis antigen carbohydrate structure is capable of inhibiting or substantially reducing the adhesion of *H. pylori* to epithelial cells of a histological section of human gastrointestinal mucosa.

4. Use according to any one of claims 1 - 3, in which the sialyl-Lewis antigen is chosen among sialyl-Lewis x and sialyl-Lewis a.

5. Use according to any one of claims 1 - 3, in which the sialyl-Lewis antigen is chosen among dimeric or repetitive sialyl-Lewis x and dimeric or repetitive sialyl-Lewis a.

6. Use according to any one of claims 1 - 5, in which the conditions involving gastrointestinal infection by *H. pylori* comprise gastritis, chronic active gastritis, gastric ulcers, duodenal ulcers, gastric adenocarcinoma, and gastric lymphoma.

7. Use according to any of the claims 1-6, in which the sialyl-Lewis antigen carbohydrate structure is bound to an inert substrate, preferably for long term release in the gastrointestinal tract.

8. Method for treating and/or preventing diseases in humans caused by infection by *H. pylori* of human gastric mucosa, said method comprising administering to a human patient in need thereof an effective amount of a fucosylated N-acetyl lactosamine carbohydrate structure, such as a sialyl-Lewis antigen carbohydrate structure.

9. A method according to claim 8, in which the sialyl-Lewis antigen carbohydrate structure is capable of binding to adhesins present on the surface of *H. pylori*.

10. A method according to claim 8 or 9, in which the sialyl-Lewis antigen carbohydrate structure is capable of inhibiting or substantially reducing the adhesion of *H. pylori* to epithelial cells of a histological section of human gastric mucosa.

11. A method according to any one of claims 8 - 10, in which the sialyl-Lewis antigen is chosen among sialyl-Lewis x and sialyl-Lewis a.

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12. A method according to any one of claims 8-10, in which the sialyl-Lewis antigen is chosen among dimeric or repetitive sialyl-Lewis x and dimeric or repetitive sialyl-Lewis a.

5 13. Use of antibodies to a fucosylated sialylated N-acetyl lactosamine structure and/or sialyl-Lewis x carbohydrate structure for inhibiting the adherence of *H. pylori*.

14. Method for treating and/or preventing diseases in humans caused by infection by *H. pylori* of human gastric mucosa, said method comprising administering to a human patient in need thereof an effective amount of antibodies to a fucosylated sialylated N-acetyl lactosamine structure, such as a sialyl-Lewis x carbohydrate structure.

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